Release Notes

DRIVER VERSION: 15.46.02.4729 (Windows Driver Store Version 22.20.16.4729)

DATE: July 17, 2017

SUMMARY:

- Fortnite* Launch Driver
- Gigantic* Launch Driver
- Minecraft Story Mode: Season 2* Launch Driver

Protect your turf, build castles, and battle massive guardians as you enjoy performance optimizations and playability improvements at release of the upcoming games, <u>Fortnite*</u>, <u>Gigantic*</u>, <u>Minecraft Story Mode: Season 2*</u>, <u>Pyre*</u>, <u>Master x</u> <u>Master*</u>, <u>Secret World Legends*</u>, and Pit People* on processors with Intel® HD Graphics 620 or better.

This driver enables Windows[®] 10 Creator's Update features, as well as provides support for toolkits to assist developers in creating Computer Vision and Deep Learning applications. Please see <u>here</u> for further details.

This driver also provides visual enhancements, improving gameplay on many popular games. Visit <u>gameplay.intel.com</u> for recommended game settings for many of your favorite PC games.

This document provides information about Intel's Graphics Driver for:

- 7th Generation Intel[®] Core processors, related Pentium[®]/ Celeron[®] Processors, and Intel[®] Xeon processors, with Intel[®] Iris[™] Plus Graphics 640, 650 and Intel[®] HD Graphics 610, 615, 620, 630, P630.
- 6th Generation Intel[®] Core processors, Intel Core[™] M, and related Pentium[®] processors, with Intel[®] Iris[™] Graphics 540, Intel[®] Iris[™] Graphics 550, Intel[®] Iris[™] Pro Graphics 580, and Intel[®] HD Graphics 510, 515, 520, 530.
- Intel[®] Xeon[®] processor E3-1500M v5 family with Intel[®] HD Graphics P530
- Pentium®/ Celeron® Processors with Intel® HD Graphics 500, 505

CONTENTS OF THE PACKAGE:

- Intel[®] Graphics Driver
- Intel[®] Display Audio Driver
- Intel[®] Media SDK Runtime
- Intel[®] OpenCL* Driver
- Intel[®] Graphics Control Panel
- Vulkan* Runtime Installer

SOFTWARE

On 7th Generation Intel Core processors and related Pentium/Celeron:

• Microsoft Windows 10[®] 64-bit

On 6th Generation Intel Core and Intel Mobile Xeon processors and related Pentium/Celeron:

• Microsoft Windows 10[®] 64-bit

NEW FEATURES:

OpenGL v4.5 support

Vulkan v1.0.38 support

Enabled additional OpenCL media extensions (details: here)

Enabled Programmable Sample Positions in Direct3D12*

Added support for Computer Vision SDK and Deep Learning Deployment Toolkits (details: here)

Windows® 10 Creators Update features enabled (7th Gen Intel® Core Processors only)

KEY ISSUES FIXED:

- Texture flickering may be observed in Halo 2* and other DX9 games
- Graphical anomalies may be observed in Guilty Gear Xrd*, Fallout[®] 4*, Euro Truck Simulator 2*, Guild Wars[™] 2*, Deus Ex[™]: Mankind Divided, Vikings – Wolves of Midgard*, Rainbow Six Siege*, For Honor*, Watch Dogs 2*, Lego Minifigures Online* (DX12 mode), and other games

Intermittent crashes or hangs may be observed in Guild Wars 2*, DOTA 2* and The Talos Principle* (Vulkan only – when resumed from suspend state), and other games

Intel[®] HD Graphics Control Panel:

- The Panel Self Refresh (PSR) option is displayed even for non-PSR panels
- Bezel correction issue in tri-display collage configurations

WebGL* stability improvements

Graphical anomalies may be observed during fullscreen video playback in some tablets, when panel is rotated by 180° through hardware

Incorrect resolution cap when auto-detecting virtual displays

SUPPORTED PRODUCTS:

HARDWARE

All platforms with the following configurations are supported:

| Intel® Graphics ¹ | DirectX* ² | OpenGL* | OpenCL* | Vulkan* | <u>Intel® Quick</u> <u>Sync Video</u> |
|---|-----------------------|---------|---------|---------|--|
| 7th Generation Intel® Core™ processors with Intel® Iris™ Plus Graphics 640/650 | 12 | 4.5 | 2.1 | 1.0.38 | Yes |
| 7th Generation Intel® Core™ processors with Intel® HD Graphics 610/615/620/630 | 12 | 4.5 | 2.1 | 1.0.38 | Yes |
| Intel® Xeon® processor E3-1500M v5 family with Intel® HD Graphics P630 | 12 | 4.5 | 2.1 | 1.0.38 | Yes |
| Pentium Processors with Intel® HD Graphics 610 | 12 | 4.5 | 2.1 | 1.0.38 | Yes |
| 6th Generation Intel® Core [™] processors with Intel® Iris [™] Pro Graphics 580 | 12 | 4.5 | 2.0 | 1.0.38 | Yes |

| 6th Generation Intel® Core™ processors with Intel® Iris™ Graphics 540/550 | 12 | 4.5 | 2.0 | 1.0.38 | Yes |
|--|----|-----|-----|--------|-----|
| 6th Generation Intel® Core™ processors with Intel® HD Graphics 520/530 | 12 | 4.5 | 2.0 | 1.0.38 | Yes |
| Intel® Xeon® processor E3-1500M v5 family with Intel® HD Graphics P530 | 12 | 4.5 | 2.0 | 1.0.38 | Yes |
| Intel® Xeon® processor E3-1500M v5 family with Intel® Iris Pro Graphics P580 | 12 | 4.5 | 2.0 | 1.0.38 | Yes |
| Intel® Core™ M processors with Intel® HD Graphics 515 | 12 | 4.5 | 2.0 | 1.0.38 | Yes |
| Pentium [®] and Celeron [®] Processors with Intel [®] HD Graphics 500/505 | 12 | 4.5 | 1.2 | 1.0.38 | Yes |
| Pentium Processors with Intel [®] HD Graphics 510 | 12 | 4.5 | 1.2 | 1.0.38 | Yes |

Note:

- 1. If you are uncertain of which Intel processor is in your computer, Intel recommends using the <u>Intel Processor</u> <u>Identification Utility</u> or <u>Intel Driver Update Utility</u> to identify your Intel processor.
- 2. In the Intel® Iris™ and HD Graphics Control Panel (under Options > Options menu > Information Center), the 'Installed DirectX* version' refers to the operating system's DirectX version. The Information Center's 'Supported DirectX* Version' refers to the Intel Graphics Driver's supported DirectX version. The DirectX 12 API is supported but some optional features may not be available. Applications using the DirectX 12 API should query for feature support before using specific hardware features. Please note that DirectX12 is only supported on Windows 10 and DirectX11.3 support is also available on supported Microsoft* operating systems.

KNOWN ISSUES

- Graphics anomalies may be observed in Assassin's Creed[®] Syndicate, Titanfall[®] 2, Bulletstorm*: Full Clip Edition, Tom Clancy's Ghost Recon Wildlands* (only when 'Bloom' enabled)
- Intermittent crashes or hangs may occur in Tom Clancy's The Division™
- Display may lose rotation after going fullscreen on an external monitor with some DirectX9* applications
- Abnormal behavior observed in PowerDVD* on 3D content playback in Windows 10[®] (fixed in Windows[®] 10 Creator's Update)
- Must reboot in order to display a new custom resolution in the Intel® HD Graphics Control Panel
- In extended display mode, HDCP may not work after video standby when using a type-C to HDMI adapter
- Menu bars may not appear in HDR Expose 3*

More on Intel[®] Core[™] processors

For more information on the Intel[®] Core[™] processor family, Intel[®] Xeon[®] processor E3 family, and 7th Generation Intel[®] Core processors, please visit:

Intel® 7th Generation Core Processors

http://www.intel.com/content/www/us/en/processors/core/core-processor-family.html

http://www.intel.com/content/www/us/en/processors/xeon/xeon-processor-e3-family.html

http://www.intel.com/graphics

Work and play in high resolution with Intel® HD Graphics, Iris™ Graphics, Iris™ Plus Graphics, and Iris™ Pro Graphics. Watch captivating 4K Ultra HD (UHD) video on up to three screens, edit photos and videos like a pro, and immerse yourself in vividly rendered, seamless 3D gameplay - all with the added power boost of an Intel[®] Core[™] processor. Intel[®] Graphics bring stunning visuals to thinner and lighter portable devices, like laptops, 2 in 1s, and desktop computers. We continuously strive to improve the quality of our products to better serve our users and appreciate <u>feedback</u> on any issues you discover and suggestions for future driver releases. If you have an issue to submit, **please follow the guidance found here** <u>Default level information for reporting Graphics issues</u>.

*Other names and brands may be claimed as the property of others.